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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,105

Applicant(s)

FEINBERG, PAUL H.

Examiner

Justin M. Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,7 and 14-28 is/are allowed.
- 6) ☒ Claim(s) 5,6,8,9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "495" in FIG. 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: it appears that "(step 440)" should be inserted after "time period 1" (page 9, line 3) and "single time period" (page 9, line 13). Appropriate correction is required.

Claim Objections

3. Claim 6, 8, 14, 18, 26 and 27 are objected to because of the following informalities: “a different frequencies” (claim 6, line 2) should be changed to “different frequencies”; “its allocated channel” (claim 8, line 10) should be changed to “its re-allocated channel”; “channels; and” (claim 14, line 22) should be changed to “channels;”; “packets; during” (claim 18, lines 6-7) should be changed to “packets; and during”; “if an OFDM” (claim 26, line 1) should be changed to “is an OFDM”; and “time period,” (claim 27, line 10) should be changed to “time period, and”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 5 recites the limitation “the atmosphere”. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 6 is dependent upon claim 5 and is rejected for the same reason discussed above regarding claim 5.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 8, 9 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,826,160 to Wang et al.

Regarding claim 8, Wang teaches a method of transmitting plurality of packets of information over a multi-channel medium comprising: allocating each packet to a channel of the medium (e.g., see FIGS. 2b and 2c regarding packets allocated to channels HH/GG/FF); during a first time period (e.g., time slots for transmitting packet 262a from device C, see FIG. 2c), transmitting a packet on its allocated channel (e.g., transmitting packet 262 from device C on channel HH); re-allocating a packet to a channel of the medium such that the packet is not allocated to a channel it was allocated to during the first time period (e.g., re-allocating a packet from device C to channel FF, see col. 16, lines 30-47); during a second time period (e.g., time slots for transmitting packet 262b from device C) after the first time period, transmitting a packet on its re-allocated channel (e.g., transmitting packet 262b from device C on channel FF).

Additionally, Wang teaches packets transmitted from the same device may be retransmitted packets when a collision has occurred (e.g., see col. 1, lines 56-57) and that packets identified as “#a” and “#b” (e.g., packet 162a and packet 162b, or similarly, packet 262a and packet 262b) may comprise the same packets retransmitted from the device in an additional attempt upon such a collision (e.g., see col. 2, lines 17-21). Accordingly, Wang anticipates packet 262b from device C to comprise the same packet as packet 262a from device C. Furthermore, Wang anticipates that each of the plurality of packets transmitted over the medium may be transmitted

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in the arrangement discussed above regarding packets 262a and 262b from device C (e.g., see col. 8, lines 45-51; col. 8, line 65 – col. 9, line 3; col. 9, lines 29-37; col. 9, lines 57-59; col. 10, lines 40-43; col. 12, lines 33-35; col. 14, lines 23-25; col. 16, lines 3-5; col. 16, lines 30-47; col. 18, line 63 – col. 19, line 4).

Regarding claim 9, Wang teaches re-allocating each packet to a channel of the medium such that the packet is not allocated to a channel it was allocated to during the first or second time period (e.g., see col. 9, lines 57-60); during third time period after the second time period, transmitting each packet on its allocated channel (e.g., see the change in allocation from the arrangement in FIG. 2b to that of FIG. 2c).

Regarding claim 11, Wang teaches the step of transmitting during time period comprises transmitting all of the packets simultaneously (e.g., see col. 7, line 60 – col. 8, line 9, wherein all channels may be utilized for transmission simultaneously).

Regarding claim 12, Wang teaches the step of transmitting during a time period comprises starting transmission of some packets before other packets (e.g., see FIG. 2c wherein devices A-C each transmit at different time slots).

Regarding claim 13, Wang teaches at least one of the channels is unable to complete transmission of the packet during the time period (e.g., see FIG. 1b using channel AA; see also col. 15, lines 1-17 regarding devices C and D not completing transmission on particular channels).

Allowable Subject Matter

9. Claims 1-4, 7, and 14-28 are allowed.

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10. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 5 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is an examiner's statement of reasons for allowance:

Claims 1, 14 and 27 each recite a novel method or system for transmitting each of a plurality of a collection of packets over specific channels and during specific time periods in such a specific manner which was not found in a search of related prior art;

Claims 18, 19 and 28 each recite a method or system for sending a collection of packets over selected channels comprising during a first time period, sending each packet of the collection substantially simultaneously such that each packet is sent over a different channel from another one of the packets; and during subsequent time periods, repeating the prior step until each packet has been sent at least once on each channel, which was not found in a search of related prior art; and

Claims 2-4, 7, 15-17 and 20-26 each depend upon one of the above-mentioned allowable claims, and are therefore also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

13. The following is a statement of reasons for the indication of allowable subject matter:

Claims 5 and 6 depend upon allowable claim 1, and therefore also comprise allowable subject matter; and

Claim 10 recites limitations similar to that discussed above regarding claims 18, 19 and 28 and therefore also comprises allowable subject matter.

Conclusion


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,868,811 to Suzuki, U.S. Patent No. 6,775,257 to Watanabe, and U.S. Patent Application Publication No. US 2002/0114311 A1 by Mazur et al. each disclose various packet transmission systems over plural channels.

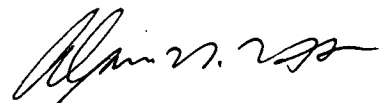
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin M Philpott



ALPUS H. HSU
PRIMARY EXAMINER